UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,409	10/06/2005	Wolfgang Rauscher	WOLF3003/JEK	6000

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ART UNIT	PAPER NUMBER
2624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/535,409	RAUSCHER ET AL.
	Examiner	Art Unit	
	CLAIRE WANG	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _06 October 2005_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-15_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-15_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _06 October 2005_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _05/18/2005,05/10/2007,06/01/2006_.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-14 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention.   Supreme Court precedent[1] and recent Federal Circuit decisions[2] indicate that a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claims recite a series of steps or acts to be performed, the claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

_____

[1]   *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).
[2] *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

3.   Regarding claims 6, 7 and 11, the phrase "exemplified by" renders the claim

indefinite because it is unclear whether the limitation(s) following the phrase are part of

the claimed invention. See MPEP § 2173.05(d).

4.   Claim 8 is objected to under 37 CFR 1.75c as being in improper from because a

multiple dependent claim on any of the previous claims. See MPEP 608.01(n).

Accordingly, claim 8 has not been further treated on the merits.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1-11 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by

Baudat (5,678,677).

        As to claim 1, Baudat teaches a method for checking value documents having an

authenticity feature in the form of at least one luminescent substance, the value

document being irradiated with light and the luminescence radiation emanating from the

value document detected with spectral resolution to determine whether the authenticity

feature is present in the value document, comprising the steps forming a measuring

vector from measuring values corresponding to different frequencies and/or frequency

domains of the luminescence radiation (in each area of the banknote, there may be

measurements of different features such as reflectance intensity of lights, these

measurements are then delivered to the preliminary system where for each scanning

point, a k-dimensional local feature vector is formed; Col. 4, lines 4-16); and doing an

object allocation of the measuring vector to one of a plurality of given reference vectors

corresponding to different authenticity features by allocating at least one object

allocation area to each reference vector and checking which object allocation area the

measuring vector located in (each component of each of the k-dimensional vectors can then be compared with a stored range and then classified; Col. 4, lines 43-51).

As to claim 15, it is the apparatus claim of claim 1. Please see above for detail analysis.

As to claim 2, Baudat teaches a step for checking whether the amount of the measuring vector is greater than a given reference value (the greatest magnitude component of the surface feature vector is compared with a limiting parameter; Col. 7, lines 26-31).

As to claim 3, Baudat teaches wherein the step of checking whether the amount of the measuring vector is greater than a given reference value is carried out before the step of allocating the measuring vector to one of a plurality of given reference vectors (the comparison step is the first step and it is done before any values are assigned to the target vector; Col. 7, lines 48-49).

As to claim 4, Baudat teaches wherein the measuring vector and the reference vectors are normalized (transformation both normalize and compresses the data; Col. 5, lines 24-26).

As to claim 5, Baudat teaches wherein the object allocation of the measuring vector to one of the reference vectors is done by comparing the measuring vector with a plurality of reference vectors and/or with at least one quantity which depends on at least two reference vectors in (each component of each of the k-dimensional vectors can then be compared with a stored range and then classified; Col. 4, lines 43-51).

As to claim 6, Baudat teaches wherein the object allocation of the measuring vector to one of the reference vectors is done by determining a smallest difference, as exemplified by the smallest distance from the measuring vector to the reference vectors (in each unit there is determined a target vector that, amongst all the target vectors of the target class, has the least value of a distance from the surface feature vector, wherein the distance is advantageously the Euclidean distance between the target vector and the surface feature vector; Col. 6, lines 34-39).

As to claim 7, Baudat teaches wherein a quantity which depends on at least two reference vectors is formed as a separation plane between the two reference vectors, as exemplified by an dimensional hyperplane between the two n-dimensional reference vectors, the separation plane separating the object allocation areas of the two reference vectors from each other (Fig. 5).

As to claim 9, Baudat teaches wherein the luminescence radiation is measured with time resolution on a value document to be checked, such that the comparison of measuring vector and reference vectors can be done time-dependently (real-time system; Col. 2, line 47).

As to claim 10, Baudat teaches wherein the measurement of the luminescence radiation is done only on one or more predetermined partial areas of a surface of the value document which can be predetermined denomination-specifically (scanning a bank lit by different lights, wherein different individual areas are scanned in; Col. 4, lines 4-19).

As to claim 11, Baudat teaches wherein the measuring vector comprises measuring values of an invisible spectral range, as exemplified by infrared and ultraviolet spectral ranges (infra-read radiation; Col. 4, line 11).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Baudat in view of Yakhini et al. (US 7,330,606 B2 hereinafter "Yakhini").

As to claim 12, Yakhini teaches a method for extracting data from a surface

(Title), wherein the data is extracted and the magnitude of the background signal is

determined. Thus, Yakhini reads on the claimed wherein evaluation of the measuring

values takes account of a background signal which does not come from the

luminescence radiation. Therefore, it would have been obvious for one ordinarily skilled

in the art at the time the invention was made to combine the classification method of

Baudat with the data extraction method of Yakhini using background information in

order to extract the features of interest from the background (Yakhini Col. 2, lines 63-

64).

As to claim 13, Yakhini teaches wherein, for forming the measuring vector, an amount depending on the magnitude of the background signal is subtracted from the measuring values (compute, for each signal, background subtracted magnitudes for each feature; Col. 3, lines 1-2).

As to claim 14, Yakhini teaches wherein the amount is dependent on the magnitude of a minimum and/or maximum of the measuring values and/or a ratio of two measuring values (determine the ratio of background-subtracted and normalized signals for each feature; Col. 3, lines 7-10).

Contact Information

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to CLAIRE WANG whose telephone number is (571)270-

1051. The examiner can normally be reached on M-F 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Matthew Bella can be reached on 571-272-7778. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew C Bella/
Supervisory Patent Examiner, Art
Unit 2624

Claire Wang
12/20/2008